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Micronesian Counselor
March 10, 2007 Issue 66

A Tuna Industry

in Micronesia?

Peter Wilson

Introduction

The failures of Micronesian fishing industries during past years has convinced many island leaders that it is not possible to establish profitable island owned and managed tuna related industries in the Western Pacific. This is because years ago Micronesian leaders recognized the importance of establishing such industries and spent many millions of dollars building and operating them. However, their operations failed, costing the government millions of dollars they could ill afford.

So the islands nations are now content with taking whatever money they can get from fishing license fees and letting it go at that. Some fourteen island nations in the Pacific are receiving a total of $65 million in annual fishing license fees. FSM receives about $12 million a year and the Marshalls one million.

Is this the most that Pacific nations can make from this rich resource? Let's look at the tuna fishing industry in the Pacific once more and consider some of the possibilities.

The Rich Pacific Tuna Resources

Pacific island nations control Exclusive Economic Zones (EEZ) that total of some 15 million square miles. The Pacific produces 2.7 million tons a year or 64% of the global tuna harvest. The SPC reported that 1.5 tons of skipjack and 870,000 tons of yellowfin were harvested in the Pacific during 2002. Catches of bigeye and albacore put the total at 2,679,000 tons harvested.

Ninety-eight percent of this total Pacific tuna harvest–and over 60 percent of the world total–comes from the EEZs of FSM, Papua New Guinea, Kiribati, Solomon Islands, Nauru, Tuvalu, and the Marshall Islands. It is obvious that the part of the Pacific served by the Western and Central Pacific Fisheries Commission is the largest tuna resource in the world. This area includes most of Micronesia. As is shown in the attached chart, FSM provides 28% of the total catch; PNG provides 21% and Kiribati 20%.

Photo Album

www.micsem.org

Hagatna on the Rise

Hagatna has been the principal town and administrative center of Guam since the first Spanish colony in the late 1600's. This album offers a look at the evolution of the city during the first half of the 20th century.

Publications

MICRONESIA: WINDS OF CHANGE (reprinted)

This coffee table history book of Micronesia offers plenty of illustrations to capture the attention of all ages. First published in 1980, the newly reprinted version is now available in hardback at Micronesian Seminar for only $35.o0! Or order online at ***www.micsem.org/zen_cart/index.php***.

Schools

Pohnpei Elementary Schools

"Report cards" of Pohnpei elementary schools have been added to our website. The information provided includes photos and status reports of each school. See the following link for reviews of both Chuuk and Pohnpei elementary schools ***www.micsem.org/schools/index.htm***.

We have changed our email address!

See the back cover for full list of new email addresses.

enough to give people access to basic social services. As Pacific populations increase, poverty is a growing reality for many."

The establishment of a viable tuna fishing industry is the most obvious road to this prosperity. Failure to establish tuna related industries can only lead to a continuing decline of island economies and the eventual regional economic dominance by Asian interests.

Peter Wilson headed the fisheries programs in the Trust Territory for years before becoming the Director of Fisheries and Advisor to the Government of Papua New Guinea for seven years. He then established Global Ocean Consultants and did extensive work in the Indian Ocean, Africa and Indonesia.

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The tuna fishing industry is growing yearly. A Global World Tuna Market Conference recently held in Bangkok concluded that the tuna catches are continuing to grow and that skipjack is by far the main tuna species caught. The yellowfin harvest is also growing, but there is concern it may soon be over-fished. The report went on to state that the bluefin and bigeye resources were under stress, but that while bluefin is being well managed, bigeye is a major concern.

Who is harvesting this rich resource from Pacific waters? Foreign fishing vessels from Japan harvested nearly 450,000 tons, Philippines over 300,000 tons, Taiwan nearly 260,000 tons, and Korea over 210,000 tons. In addition, long-liners caught 200,000 tons of tuna, while pole and line vessels caught some 160,000 tons.

So Why Aren't We Using It?

While FSM has jurisdiction over one of the largest EEZs in the Pacific that contains some of the best tuna fishing areas in the world, the harvesting of these resources has been relegated almost entirely to foreign owned fishing vessels. Even if FSM has control over a generous portion of the world's supply of tuna, it has not developed the capacity to utilize these renewable resources by the use of proven processing, marketing, and vessel service industries**.**

It's not that FSM and its Micronesian neighbors didn't try to establish a local fishing industry. There were some eleven Micronesian fishing companies operating during the 1990s, but they lost a total of close to $100 million in investment and operating deficits. The failure of these past fishing industries has resulted in a belief that tuna related industries can not be successful in Micronesia.

The record of fishing operations started in Micronesia over the years includes pole and line fishing in Palau and Chuuk, purse-seine and long-line fishing in FSM, purse-seining in the Marshall Islands, and FAD (Fish Aggregation Device) fishing in Kosrae.

A purse-seine fishing operation started in the Marshall Islands to

prepare cooked tuna loins for the American Samoa tuna cannery closed down just a year ago because of operational difficulties. Years earlier FSM purchased three purse-seiners that was to be the beginning of a new fishing effort on Pohnpei, but the vessels were in bad condition: one of them sunk and the others failed financially.

Kosrae tried to establish a tuna operation using FADs and outboard motor boats that would provide fish for a local loin plant that was constructed by Japan. But it appears this operation was destined to fail, since the FAD anchor chains and swivels rusted and broke, allowing the FADS to drift away, while the outboard motors were not reliable enough for offshore fishing several hours a day.

Kosrae, which originally intended to set up a cold store and tuna processing operation, decided to join forces with the owner-operator of a Guam based purse-seine fleet to establish seining and canning operations instead. But the purse-seine operator ended up going bankrupt, leaving Kosrae with a 3,000 ton cold store and no experienced managers. A Taiwanese long-line company started operations there but soon afterward departed, leaving Kosrae with a large cold store that is now falling apart.

> The failure of these past fishing industries has resulted in a belief that tuna related industries can not be successful in Micronesia.

All of these operations failed for various reasons, including poor management, shoddy planning, inadequate equipment, and lack of experience. As purse-seine fishing grew in the region, it pushed the pole and line fishermen aside, so that today there are far fewer of these vessels operating in the Micronesian region than there used to be.

A Terrible Oversight?

The failure of our island and U.S. leaders to ignore the enormous financial benefits that can accrue from the development of the world's most important tuna resource that is owned by the island nations is

objectives of this plan would be to determine the ability of the island industries to market their finished product to world markets. This is essential as there are many foreign processors thousands of miles away using the islander's tunas in plants that have cheap labor and other overhead expenses.

About three industry specialists would tour the region and collect the data required to prepare a detailed business plan for each site. The local business and political leaders would be advised of the benefits tuna related industries would provide; e.g., jobs for men and women, training programs, medical services, child care centers, transport services to and from work, etc. When the locals agree to the establishment of such industries on specific sites and are aware of the pros and cons of establishing such ventures, the industry experts would seek documented evidence for the support or rejection of processing and vessel support services from the locals involved. The design of the facilities would be similar in order to utilize the same equipment and reduce development costs and ensure easy maintenance.

This study would then be presented to Development Banks that have stated they will provide "soft loans" for the construction of infrastructure required to support viable industries in the islands. As these "soft loans" will be over $10 million on each site where docks and power and water facilities are constructed, and as these loans can be repaid via user fees, the return on invested capital should be large enough to attract banks, governments and venture capitalists to provide the balance of the funds required to construct the facilities and train the islanders how to operate their industries.

The Last Call

Banks and economic advisors have repeatedly pointed out the need to achieve sustainable economic growth and prosperity in the Pacific as one of the greatest challenges that the region is facing. "Economic growth in the islands has not been sufficient to generate the jobs required to absorb the young people entering the labor market," Philip Erquiaga, the Director General of ADB's Pacific Department, said in a November 2006 conference in Manila. "Economic growth has not been

Getting Beyond Failures

The Micronesian fishing companies established during the 1990s lost millions of dollars and created a loss of hope in the viability of a successful tuna fishing industry. These failures, however, were caused by poor planning and management, not by the operational difficulties island-based industries can and must resolve.

Most of the Micronesian nations are ideally located for operating tuna industries. However, they have not worked closely together on establishing viable industries. Should they undertake the establishment of a major tuna industry using professional industry personnel to plan, build, manage and train the locals in proper management procedures, they could very likely have a very successful operation in a short period of time.

As the resource is so large and the potential so great, the chances for much greater gains could be obtained if several of the key island nations worked together to accomplish the same objectives.

As the resource is so large and the potential so great, the chances for much greater gains could be obtained if several of the key island nations worked together to accomplish the same objectives using independent industry personnel to prepare a detailed business plan that would enable not one, but several plants to be established together using the same plans. This approach would greatly strengthen the island's ability to require the various fishing nations to work with the islanders in order to be able to continue to fish in their EEZs.

Given regional cooperation on the harvesting of their shared tuna resources, independent industry associates believe it is possible to prepare a Regional Tuna Industry Development Plan that will show how all islands can benefit by working together to utilize their shared tuna resources. The personnel preparing the plan would evaluate the potential of each site including labor force, harbor condition, power and water supplies, land ownership, and other factors. One of the major

unbelievable. The importance of the resource is well known, yet no effort has been made to establish the various industries that utilize the tunas using experienced personnel. Further, the regional organizations that have been established to help their members have not focused on using tuna to improve the failing island economies. This oversight demonstrates the shortsightedness of those responsible for the future welfare of our islanders.

The major source of revenue realized by Pacific Island nations from their tuna resources is license fees, which total over $65 million annually and are divided between 14 island nations. Yet, it is common knowledge that vessels operating in the Atlantic pay much higher fees than this, so island nations are being urged to work together to demand higher fees for the tunas harvested in their EEZs.

A summary of the outlook for canned tuna states that there is less production of canned tuna in developed countries than in developing countries due to higher labor costs. The document also notes the importance of the wide range of tuna products that are important in international marketing. They include sashimi tuna, raw frozen tuna in the round for canning and as cleaned tuna loins, fresh tuna in local markets, tuna burgers, tuna jerky, tuna sausage, tuna roe, and tuna pouch products. Specialty products also mentioned included smoked tuna, katsuobushi, tuna steaks, tuna fillets in plastic. Animal feed and pet food are also produced from the processing waste of tuna canneries.

All of these products can be processed very competitively in the islands once the support facilities and trained personnel are in place.

Transporting harvested tuna for processing in plants thousands of miles from the fishing grounds is expensive in fuel and lost fishing time. In addition, the vessels that deliver the fish to the distant plants often wait for weeks to off-load their catch and take on supplies and various vessel services.

Seiners also transship their catch to foreign processors using refrigerated carriers that also provide the vessels with fuel, food and

other necessities. This is an added expense which could be avoided if local processing facilities were available in the islands. There are over 20 tuna processors in Thailand and another 12 in Korea. Since they do not have a tuna resource of their own, they are dependent upon the tuna harvested in the Western and Central Pacific. Their low cost labor and their vessel and net repair services make it possible for them to process and market large quantities of tuna more cost effectively than plants in Japan and Europe.

Consumption and demand is expected to grow, but the limited resource...is expected to lead to higher prices in coming years.

The USA continues to be one of the main import markets for canned tuna; Thailand is the main supplier, with plants in the Philippines increasing their share. The European countries, headed by Britain, are also among the top importers of canned tuna. Consumption and demand is expected to grow, but the limited resource, which in many places shows signs of decline, is expected to lead to higher prices in coming years. The use of fresh and frozen tuna is expected to expand in many Western countries where sushi bars are becoming more popular.

How to Build an Industry

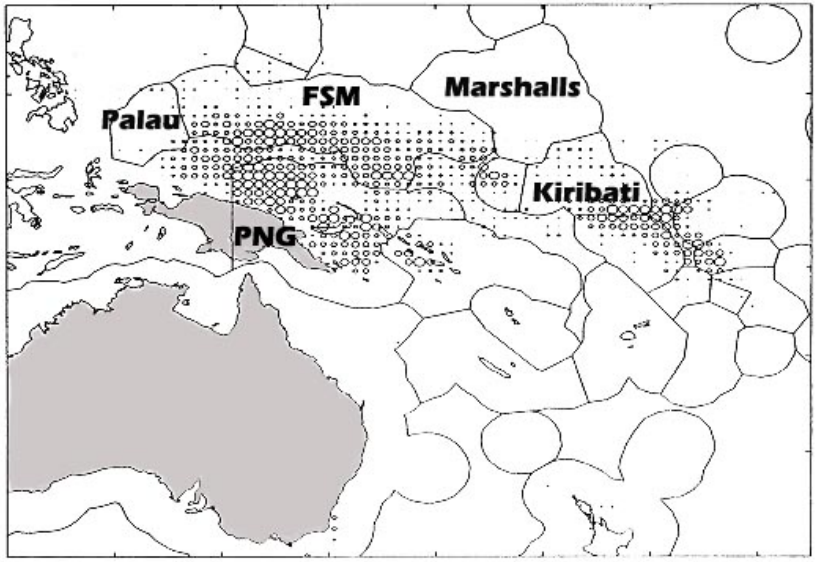
Since there are a large number of fishing vessels operating in the region and the on-board life style is a great deal different than that to which islanders are used to, the island nations should not focus on establishing large fishing operations using local crew members. Rather, they should focus on establishing shore based tuna industries and get the fish they need from the vessels they license to fish in their EEZs.

The four most important fishing industries in the Pacific are purse-seine fishing, pole and line fishing, long-line fishing, and trolling. There are over 200 purse-seiners operating in the region, over 1,500 long-liners, 230 pole and line boats, and albacore trolling vessels that operate in the high latitudes down near Australia and in the Northern Pacific.

Since many vessels fish in these areas without reporting their catches, this illegal harvesting can be controlled and halted via regional management.

Therefore, by working together, island nations can control how many vessels fish in their EEZs, how much fish is taken from their zones, and where it is discharged and processed, and how the stock can be properly managed. Even beyond this, islanders can establish complementary and similar industries that utilize their shared tuna resources. Adjacent island nations which work together to utilize and manage their shared tuna resources are much stronger economically and politically than those that work alone.

Total Tuna Catch in the Western and Central Pacific



Water boundaries are outlined for each island group. Small circles represent concentration of fishing.

"The sad reality is that we are only getting up to 5 percent of the value of tuna caught in our respective Economic Exclusive Zones."

- Mr. Marcellino Pipite, Vanuatu

managing and conserving tuna resources to achieve long term social and economic benefits for our future generations."

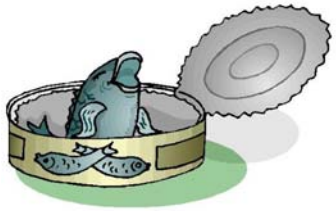
Tuna is a resource that is becoming ever more valuable with time. The world demand for tuna is large and growing as the global populations expand and the desire for low-cost nutritious food grows. Since the Pacific provides over 60 percent of the world supply of tuna, nearly all of which comes from the EEZs of a few Pacific nations, it stands to reason that cooperation among these nations could increase their share of the profits from this resource. The Pacific nations can require foreign fishing vessels to offload their catches in designated ports as a condition of licensing and thus obtain the tuna they require for processing in their shore based plants. They will strengthen their ability to dictate the terms and conditions about where the vessels will off-load, what they will pay for a regional license fee, where they will have vessel services performed, and how they will report their daily catches, among other things.

Since tuna is widely migratory and ranges far beyond the jurisdiction of individual island nations, governments must start to work together to strengthen cooperation with their neighboring states in monitoring and managing the use of their shared tuna resources. The UN Treaty on the Management of Straddling Stocks authorizes adjacent island nations that have the same tuna management regulations to extend those regulations over the high seas zones that are in-between and adjacent to their shared EEZs.

Adjacent island nations which work together to utilize and manage their shared resources are much stronger economically and politically than those that work alone.

Fishing. Fishing operations require large expenditures for vessels and gear and experienced skippers and fishermen to operate the vessels. Therefore, efforts to establish tuna industries should focus on shore-based operations and not on the costly and difficult fishing operations. Because most of the fish is harvested by foreign fishing vessels in the EEZs of the island nations, the vessels can be required, as a condition of licensing authorized by the Law of the Sea, to discharge all or a portion of their catches at designated ports. This will ensure a steady supply of fish to the shore based processing facilities. Moreover, shore based industries can provide greater yields and many more jobs than can fishing.

Tuna processing. The establishment of tuna processing operations can provide many more jobs for islanders than any other industry. A tuna cannery can employ over a thousand workers, many of them women, in a single plant. The industry also employs a wide range of expertise including accountants, quality control specialists, refrigeration engineers, electricians, sanitation specialists, cleaners, warehouse specialists, and others, most of whom can be trained on the job.



Vessel Servicing. All fishing vessels require regular services which include fuel, ship and net repair, food supplies, etc. Large docks, bulk fuel storage tanks, fresh water supplies, dry docks, net repair facilities are also required to support the operation of the hundreds of vessels operating in the region.

Agents. Once the required support facilities are in place, vessel agents will be required to assist the vessels discharge their catch, trans-ship their catches to buyers in Japan and the U.S., purchase food for the vessel crew members, and arrange for repair and dry-docking services.

Haven't We Been Through This Before?

In the earlier failed attempts to build a fishing industry in Micronesia, the governments have preferred public sector activity over alternative domestic private enterprise. The governments have spent

over $100 million in various tuna industry investments, all of which have been unprofitable, because these ventures have not been subject to rigorous independent, investment appraisal and accountability as to economic performance**.** As a 1996 Asian Development Bank report noted, the failure of these ventures can be traced to the lack of commercial business management experience and the lack of extensive experience in international commercial fisheries management and development.

The governments of FSM and the Marshalls will never be successful in directly exploiting or marketing their tuna resources. Nevertheless, there appears to be a very good chance that they can reap substantial benefits from this fishery if they set the stage for private domestic and foreign companies to develop business enterprises.

The Asian Development Bank, which has long recognized the problems of establishing fisheries industries in the region, offers these prescriptions for a successful fishing industry.

The governments have spent over $100 million in various tuna industry investments, all of which have been unprofitable, because these ventures have not been subject to rigorous independent, investment appraisal and accountability as to economic performance.

- One primary role for government is resource management. Since the fish resources are widely migratory beyond the jurisdiction of FSM or the Marshalls, the government must strengthen co-operation with neighboring states in monitoring the use of these tuna resources.
- The government needs to provide an "environment" in which the private sector can be highly successful in generating economic and social benefits to the nation and its people through the efficient production and marketing of products and services.

Further, the ability of the Micronesian nations to market their tuna duty free in the US gives them an important marketing advantage over the Asian processors. Papua New Guinea, Solomon Islands, Kiribati, and other island nations who are members of the ACP community can market their finished product duty free in Europe, provided they acquire their tuna under the terms and conditions set forth by the ACP.

Development banks have recognized that island governments must provide the infrastructure required to support viable industries. As a consequence, they have stated that they will provide soft loans and grace re-payment periods to help establish such industries, representing a savings of some $10 million dollars in the model plan referred to above.

The Importance of Regional Solidarity

At a recent Pacific meeting of Trade and Fisheries Ministers in Port Vila, Mr. Marcellino Pipite from Vanuatu reported that the value of tuna caught inside the Pacific nations' EEZs has increased by 20 percent between 1997 and 2004. Tuna caught in island nations waters now is valued at $1.2 billion a year. He then questioned the rate of return island nations receive from the foreign fishing companies. "The sad reality is that we are only getting up to 5 percent of the value of tuna caught in our respective Economic Exclusive Zones," he said.

Pipite sounded a strong call for regional solidarity. He advocated that the Pacific Island nations negotiate as a group so that they can "maintain the regional solidarity that is necessary for negotiating favorable outcomes." He explained that the basic reason the South Pacific was pursuing a regional Fishing partnership agreement with the European Union is so that "the region can build a strong collective bargaining position in negotiating a favorable outcome for fisheries as opposed to negotiating fisheries agreements with the EU on a bilateral basis." Mr. Pipite concluded: "Let us make it our ultimate goal to develop mechanism which will enable us to generate maximum benefits from the Fisheries Partnership Agreement with EU, while sustainably

cheaper ($100–$120 a ton) than the distant processors as that is what it costs the vessels to deliver their catch to the distant plants. This is a big advantage because the cost of tuna is 60 percent of the total cost of a case of tuna.

- It is in the financial interest of the fishing vessels to off-load their catches at plants on the fishing grounds as they can be paid more for their catch and turn around faster, thus enabling them to make an additional trip a year and greatly increase their income.
- Plants in Micronesia can market their finished product duty free in the U.S. markets, a marketing advantage of 12 percent over the Asian processors.
- As labor costs are 6 to 8 percent of the total cost of a case of tuna, islander's operational costs will still be competitive with Asian costs.
- The Law of the Sea authorizes island nations to direct vessels fishing in the island's Exclusive Economic Zone (EEZ) to discharge all or a portion of their catch at designated ports as a condition of licensing.

Plants in Micronesia can market their finished product duty free in the U.S. markets, a marketing advantage of 12 percent over the Asian processors.

Marketing of the finished product, whether it is canned tuna or tuna loins, is very competitive and depends on price and quality. Production from island based industries must be able to compete with tuna produced from larger, more distant plants. The foreign plants have several advantages over new plants starting up in and on the fishing grounds–the cost of labor, established markets, and larger production. Yet, the island tuna resource owners have many more advantages, as noted above. All of these factors must be considered in the detailed tuna industry development plan that must be prepared by independent tuna industry personnel.

As production increases from island based processors, the finished products can be combined and the region's own label can be promoted.

- The government should also provide "hard" infrastructure such as adequate supplies fuel, power, potable water, sanitary waste disposal, proper port facilities, shipping terminals, access roads, and docks.
- The government needs to avoid involvement in primary production activities such as commercial fishing, operation of processing plants, storage facilities, ice making, transport services, and marketing of production.
- The government must also avoid the operation of service industries such as engine and boat repair, fishing gear manufacturing and repair, ship chandlers, and provision of processing equipment.

If the governments are prepared to take on these roles, and to restrict its activity to these roles, there is a chance that successful fishing industries can be established.

Vessel Support Services

There were 399 purse-seiners operating in the Western and Central Pacific during 2004, according to the SPC. Over half of these, 203 seiners, were fishing in the waters of Micronesia, Papua New Guinea, Marshall Islands, Solomon Islands, Vanuatu, Palau, and Kiribati. Each of these vessels normally catches 4,000 to 5,000 tons of tuna a year, at an approximate value of $700 a ton, or a total of $630 million for all the seiners fishing in this area.

These seiners also require a variety of services to keep fishing, such as fuel, food, net and vessel repair, and recreation. The Government of Guam has reported that these services come to more than $400,000 a trip or $2 million a year per vessel. Thus, the 200 seiners operating in the region would spend $400 million a year for such services away from the fishing grounds in their home ports.

The SPC also reports there were 1,700 long-liners operating in the Micronesian and adjacent island regions during 2004. Each of these vessels spends about $10,000 a trip for food, bait, ice, fuel averaging 2,000 gallons, fishing gear, vessel repairs, water, and the like. The long-liners make about 12 10-day fishing trips a year, thus incurring

trip costs of some $200,000 a boat per year. Services for all long-liners in the area would amount to about $340 million yearly. In FSM alone, such services could amount to expenditures in the range of $71 to $87 million annually, of which an estimated 53% would stay in FSM.

Government leaders appear to have over-looked the fact that seiners and long-liners operating in the region all require a wide range of vessel services. Few of these services are now performed in the region, since there are still no suitable docks, trained personnel or other facilities despite the millions of dollars provided by the U.S.

It is very probable the vessel owners and operators would resist making use of such island-based services inasmuch as their owners want that business back home. However, if the adjacent island nations work together and provide excellent services at competitive prices, they could advise the foreign operators that they will not be given fishing licenses unless they agree to service their vessels in the region.

Fish Processing Plants

The feeling that tuna related industries cannot be successfully established in the island is a very serious misconception, for islanders have proven they can operate complex industries that are properly planned and managed by experienced personnel.

A case in point is the two tuna canneries in American Samoa that were established many years ago by Star Kist and Van Camp Seafoods. These companies used their experienced personnel to plan the construction of the industries and their staff to train the locals in all facets of cannery operations. A recent American Samoa Economic report stated the 12,264 workers contracted in the tuna canning industries were paid $5.67 an hour, a very high salary when compared to the wages paid to workers in the Asian plants. What keeps these plants in business, however, is that they are able to market their product duty free in the US. Should this duty free

exemption be taken away by the US, the plants would probably shutdown. That does not appear likely because the canneries are essential to the island economy.

Another example is the tuna industry established on an atoll in the Indian Ocean that had no dock, no power and water systems, no housing, no processing equipment, and no refrigeration facilities when Global Ocean Consultants and another corporation started to establish the canning industry. Today it is very profitable and is owned, managed and operated by the Maldivians, who sell their finished product to the highest quality markets in the EEC.

When experienced personnel are used to plan the establishment of such industries and to train the locals how to operate them properly, such industries can be successful.

Therefore, when experienced personnel are used to plan the establishment of such industries and to train the locals how to operate them properly, such industries can be successfully and profitably established.

A properly designed and managed processing plant, according to a plan prepared by an Australian Company and Global Ocean Consultants, could process 40,000 tons of tuna a year, would employ 1,000 workers and several hundred others in support operations besides providing medical and educational services for employees and families, and would have gross revenues of $60 million a year and a net income of $10 million plus annually.

If ten such plants were erected in the region, they would not even use half of the tuna being taken thousands of miles away for processing in foreign canneries.

It is important to recognize that the island nations have many important advantages over the foreign processors who are many thousands of miles from the fishing grounds. For example:

- Island based canneries can obtain the raw product 10 to 20 percent